

CLAIMS

1. (amended) A method of manufacturing moldings (30) using a mixing device (10) for extrusion molding including a main cylinder (11) connected to a metal mold for forming moldings (30), a main screw (12) rotated in said main cylinder (11) for mixing resin material (20) and delivering the same to said metal mold, a main throw-in machine (13) connected to said main cylinder (11) at the start end part thereof, and a sub-throw-in machine (14, 15) connected to said main cylinder (11) at the part between said metal mold and said main throw-in machine (13);

characterizing in that outer resin material (21), which forms the outer part of said molding (30), is thrown into said main cylinder (11) from said sub-throw-in machine (14, 15);

that inner resin material (22), which forms the inner part of said molding (30), is thrown into said main cylinder (11) from said main throw-in machine (13); and

that cellulose material, which is fixed grains formed by fixing surface grains which have a diameter smaller than that of pulverized powder obtained by pulverizing cellulose material and are harder than said powder to the outer peripheral surface of said pulverized powder, is mixed with said outer resin material (21).

2. The method of manufacturing moldings (30) as claimed in claim 1, wherein said outer resin material (21) is made different from said inner resin material (22) in a color.

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (cancelled)
9. (cancelled)
10. (cancelled)
11. (cancelled)
12. (cancelled)
13. (cancelled)

14. (amended) The method of manufacturing moldings (30) as claimed in claim 1, wherein cellulose material is mixed with said inner resin material (22).

15. (amended) The method of manufacturing moldings (30) as claimed in claim 2, wherein cellulose material is mixed with said inner resin material (22).

16. (amended) The method of manufacturing moldings (30) as claimed in claim 14, wherein cellulose material mixed with said inner resin material (22) is fixed grains formed by fixing surface grains which have a diameter smaller than pulverized powder obtained by pulverizing cellulose material and are harder than said powder to the outer peripheral surface of said pulverized powder.

17. (amended) The method of manufacturing moldings (30) as claimed in claim 15, wherein cellulose material mixed with said inner resin material (22) is fixed grains formed by fixing surface grains which have a diameter smaller than pulverized powder obtained by pulverizing cellulose material and are harder than said powder to the outer peripheral surface of said pulverized powder.

18. (cancelled)
19. (cancelled)

20. ~~(amended) A mixing device (10) for manufacturing moldings (30) comprising a main cylinder (11) connected to a metal mold for forming moldings (30), a main screw (12) rotated in said main cylinder (11) for mixing resin material~~

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(20) and delivering the same to said metal mold, a main throw-in machine (13) connected to said main cylinder (11) at the start end part thereof for throwing inner resin material (22), which forms the inner part of said molding (30), into said main cylinder (11), a sub-throw-in machine (14, 15) connected to said main cylinder (11) at the part between said metal mold and said main throw-in machine (13) for throwing outer resin material (21), which forms the outer part of said molding (30), into said main cylinder (11), an outer resin material (21) holding part for holding said outer resin material (21), a sub-throw-in hole for delivering said outer resin material (21) to said main cylinder (11), and a receiving hole positioned, in said main cylinder (11), between said metal mold and said main throw-in machine (13);

characterizing that the rotating direction side of said main screw (12) in the cylinder inner wall of said receiving hole of said main cylinder (11) is formed in such a manner as to expand said receiving hole.

21. (cancelled)

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~~22. The mixing device (10) for manufacturing moldings (30) as claimed in claim 20, wherein said receiving hole is a vent hole previously provided in said mixing device (10) for extrusion molding.~~

23. (cancelled)

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~~24. (amended) The mixing device (10) for manufacturing moldings (30) as claimed in claim 20, wherein said sub-throw-in machine (14, 15) includes a sub-screw (17) rotated in a sub-cylinder (16) for mixing outer resin material (21) held in said sub-cylinder (16) and delivering the same.~~

25. (cancelled)

26. (cancelled)

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~~27. The mixing device (10) for manufacturing moldings~~

(30) as claimed in claim 20, wherein there are plural receiving holes of said main cylinder (11) in the direction of extrusion.

28. (amended) The mixing device (10) for manufacturing moldings (30) as claimed in claim 22, wherein there are plural receiving holes of said main cylinder (11) in the direction of extrusion.

29. (amended) The mixing device (10) for manufacturing moldings (30) as claimed in claim 24, wherein there are plural receiving holes of said main cylinder (11) in the direction^a of extrusion.

30 ~~32~~ (amended) The mixing device (10) for manufacturing moldings (30) as claimed in claim 20, wherein said main screw (12) has a small-diameter part (12A), the diameter of which is made smaller than that of other parts of said main screw (12), corresponding to the expansion of said receiving hole.

3| ~~32~~. (amended) The mixing device (10) for manufacturing moldings (30) as claimed in claim 22, wherein said main screw (12) has a small-diameter part (12A), ^a the diameter of which is made smaller than that of other parts of said main screw (12), corresponding to the expansion of said receiving hole.

3233. (amended) The mixing device (10) for manufacturing moldings (30) as claimed in claim 24, wherein said main screw (12) has a small-diameter part (12A), the diameter of which is made smaller than that of other parts of said main screw (12), corresponding to the expansion of said receiving hole.

3324. (amended) The mixing device (10) for manufacturing moldings (30) as claimed in claim 27, wherein said main screw (12) has a small-diameter part (12A), the diameter of which is made smaller than that of other parts of said main screw (12), corresponding to the expansion of said receiving hole.

~~3435.~~ (new) The mixing device (10) for manufacturing moldings (30) as claimed in claim 28, wherein said main screw

(12) has a small-diameter part (12A), the diameter of which is made smaller than that of other parts of said main screw (12), corresponding to the expansion of said receiving hole.

~~3536. (new) The mixing device (10) for manufacturing moldings (30) as claimed in claim 29, wherein said main screw (12) has a small-diameter part (12A), the diameter of which is made smaller than that of other parts of said main screw (12), corresponding to the expansion of said receiving hole.~~

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